

ABSTRACT OF THE DISCLOSURE

The object of the present invention is to provide a switching valve capable of increasing the opening stroke of a valve operated by a differential pressure while saving space, thereby reducing pressure loss. A first valve is disposed between an inlet port and a first outlet port. A pilot valve is provided between a back pressure chamber for a movable plug that holds a valve sheet disposed in a manner opposed to a valve seat, and the first outlet port, such that the first valve is operated by a solenoid. A second valve is arranged between the inlet port and a second outlet port. A back pressure chamber for a movable plug that holds a valve sheet disposed in a manner opposed to a valve seat and the first outlet port are communicated with each other. The second valve is opened by the differential pressure generated by closing of the first valve, and when the first valve is opened, the second valve is closed by the spring since the differential pressure is reduced to zero. After the second valve is closed, the valve-closed state thereof is maintained by the difference between pressure-receiving areas. The second valve is formed to have a sealing structure using a slidable X packing, whereby the valve-opening stroke can be increased.